

JOURNAL
OF THE
BOMBAY
Natural History Society.

No. 1.] BOMBAY, JANUARY 1886 [Vol. I.

INTRODUCTION.

IN issuing the first number of the Journal of the Bombay Natural History Society, it seems appropriate to give some account of the origin of the Society and of its position at the present time. It was founded on the 15th of September 1883 by seven gentlemen interested in natural history, who proposed to meet monthly and exchange notes, exhibit interesting specimens, and otherwise encourage one another. The subscription was purposely made little more than nominal, and the possibility of forming or maintaining a museum was scarcely contemplated at that time. For several months meetings were held in the Victoria and Albert Museum; but in January 1884, Mr. H. M. Phipson kindly offered the use of a room in his office in the Fort. This removal to a central situation gave an astonishing impulse to the Society. The meetings were better attended, the membership increased, and collections began to be made, so that in a very short time the necessity for more ample accommodation was pressingly felt. A committee appointed to seek for suitable rooms, having failed elsewhere, recommended the Society to ask Mr. Phipson to let one-half of his office premises, including the room, of which they had up to this time had the gratuitous use. He consented to this, and so the Society continued to hold its meetings and keep its collections at 18, Forbes Street. Its progress was so rapid, however, that these premises were soon felt to be too small, and last month the collections were removed to larger and in every way more suitable rooms at 6, Apollo Street.

In the month of May last, a very important change was made in the constitution of the Society. The monthly meetings, being largely attended by members who took only a general interest in natural history, had naturally acquired a very popular character, and it was found impossible to introduce much strictly scientific matter on these occasions. It was decided, therefore, while continuing the good work already done in popularising the subject of natural history, to make better provision for the study and advancement of the science by the formation of sections as follows :—

1. Mammals and Birds.
2. Reptiles and Fishes.
3. Insects.
4. Other Invertebrata.
5. Botany.

Those members specially interested in any branch of natural history were invited to join the corresponding section, elect a President and Secretary, take charge of that portion of the collections which appertained to their division, and hold their own meetings, thus forming practically a separate Society affiliated to the general Society. All the sections have now organised themselves and made their own arrangements for carrying on the work of their respective branches.

This has prepared the way for another important and necessary step—the publication of a journal in which whatever of value or interest is transacted at the sectional meetings may be permanently put on record. Till now there has been no publication in the Bombay Presidency devoted to natural history or any of its branches, and, perhaps, as a consequence of this, there is scarcely any Presidency or Province the fauna of which has received so little attention. It is hoped that the introduction of this journal will stimulate lovers of Nature, especially in all parts of this Presidency, to record and communicate their observations. In accordance with the character which this Society has assumed from the beginning, the aim of its journal will be, as far as possible, to interest all students of nature, ever remembering that there are many Naturalists, in the highest sense of the term, who have not such a technical knowledge of any particular branch of the science as to be able to enter with interest into questions of nomenclature and the discrimination of closely allied species. The Secretaries of the Sections would therefore invite sportsmen

and others to communicate anything interesting or worthy of note, which comes under their observation, bearing on the nature and habits of animals or plants.

One other matter remains to be noticed. No public library in Bombay affords much assistance to the naturalist, and the absolute necessity of having a good library of their own early forced itself on the attention of the members of this Society. Unfortunately it is impossible to set aside any adequate sum out of the ordinary income of the Society for the purpose, but on two occasions special subscriptions have been collected and a number of valuable and necessary works secured, while several members have at different times contributed useful books. The Bombay Government has also been so good as to present the Society with all the parts of Sir J. Hooker's Indian Flora, already issued, and to promise the rest. With all this, however, it is impossible to say more than that a beginning has been made; but as the usefulness of the Society continues to be day by day more widely appreciated, the committee look confidently forward to the time when an adequate Library Fund will be formed and maintained by spontaneous donations.

Catalogue of the Mammalia in the Collection of the Bombay Natural History Society.

ORDER I.—QUADRUMANA.—None.

ORDER II.—LEMURES.—None.

ORDER III.—CARNIVORA.

Family—FELIDÆ.

Genus—FELIS.

Felis tigris (Linn.).—The Tiger. Hab.: Eastern Asia.

a & b.—Skulls, presented by Mr. J. Shillingford, Purneah.

c.—A Skeleton, presented by Mr. W. Shipp, Lanowlie.

Felis pardus (Linn.).—The Panther.

Felis domesticus.—Hab.: India.

a.—Skull. Donor, unknown.

Family—VIVERRIDÆ.

Genus—VIVERRICULA.

Viverricula malaccensis (Gm.).—The Lesser Civet Cat. Hab.: India,
Burmah and Ceylon.

a & b.—Skins prepared for mounting, presented by Mr. E. H. Aitken, Bombay.

Genus—**PARADOXUS.**

Paradoxurus musanga (F. Cuv.).—The Common Tree-Cat.

a.—Living specimen from the Straits, presented by Mr. E. Bodger, Bombay.

b.—Skin and skull, presented by Mr. W. Shipp, Lanowlie.

Family—**MUSTELIDÆ.**

Genus—**MARTES.**

Martes abietum (Ray).—The Pine Marten. Hab.: Kashmir and Ladak.

a.—Skin, presented by Mr. R. A. Sterndale, Bombay.

Genus—**LUTRA.**

Lutra nair (F. Cuv.).—Indian Otter. Hab.: India.

a.—A skin of an Albino, presented by Mr. W. Shipp, Lanowlie.

ORDER IV.—None.

ORDER V.—**CHIROPTERA.**

Family—**PTEROPODIDÆ.**

Genus—**PTEROPUS.**

Pteropus medius (Temm.).—The Flying Fox. Hab.: India.

a.—Specimen in spirits, presented by Dr. Charlotte Ellaby, Bombay.

Genus—**CYNOPTERUS.**

Cynopterus marginatus (Geoffr.).—Little White-eared Fruit Bat.
Hab.: India.

a.—In spirits, presented by Mr. E. H. Aitken, Bombay.

b.—Mounted, presented by Mr. J. P. Cornforth, Bombay.

Family—**VAMPIRIDÆ.**

Genus—**MEGADERMA.**

Megaderma lyra (Geoffr.).—The Long-eared Vampire Bat.
Hab.: India and Ceylon.

a.—Specimen in spirits, presented by Mr. G. W. Vidal, Thana.

Sub-family—**RHINOLOPHINÆ.**

Genus—**HIPPOSIDEROS.**

Hipposideros murinus (Elliot).—Little Horse-shoe Bat. Hab.:
Southern India, Ceylon and Burmah.

a to d.—In spirits, presented by Mr. E. H. Aitken, Bombay.

Family—NOCTILIONIDÆ.

Genus—TAPHOZOUS.

Taphozous longimanus.—The Long-armed Bat. Hab.: India.

a.—Specimen in spirits, presented by Mr. E. H. Aitken, Bombay.

Family—VESPERTILIONIDÆ.

Genus—SCOTOPHILUS.

Scotophilus Coromandelianus (F. Cuv.).—The Coromandel Bat.
Hab.: India, Burmah and Ceylon.

a.—Specimen in spirits, presented by Mr. E. H. Aitken
Bombay.

Scotophilus Temminckii (Horsf.).—Temminck's Bat. Hab.: India
Burmah and Ceylon.

a.—In spirits, presented by Mr. E. H. Aitken, Bombay.

b & c.— Do. do. Mr. L. H. Butcher.

Genus—KERIVOULA.

Kerivoula picta (Pall.).—The Painted Bat. Hab.: India, Burmah
and Ceylon.

a & b.—Two specimens in spirits, presented by Mr. T. Bromley, Junr.

ORDER VI.—RODENTIA.

Family—SCIURIDÆ.

Genus—PTEROMYS.

Pteromys oral (Tickell).—Large Grey Flying Squirrel. Hab.:
India and Ceylon.

a to c.—Skins, presented by Col. Peyton.

Pteromys magnificus (Hodgs.).—Hab.: Himalayas. Skin, presented
by Mr. J. C. Anderson.

Family—MYOXIDÆ.

Genus—MYOXUS.

Myoxus avellanarius (Linn.).—Common English Dormouse. Hab.:
British Islands.

a.—Specimen in spirits, presented by Mr. R. A. Sterndale,
Bombay.

 Family—MURIDÆ.

Genus—MUS.

Mus decumanus (Pall.).—The Brown Rat. Hab.: Europe and Asia.

a, b & c.—Living specimens, presented by Messrs. E. H. Aitken and R. A. Sterndale, Bombay.

* *Mus sp. ?*—Nov. Sp. Hab.: Bombay.

a.—Living specimen, presented by Mr. E. H. Aitken, Bombay.

Mus rattus.—Young, presented by Mr. E. H. Aitken, Bombay.

b & c.—Adult, presented by Mr. E. H. Aitken, Bombay.

Mus (Nesokia) Elliotanus.—Elliot's Field Rat. Hab.: Bengal, Assam and Bombay.

a.—Living specimen, presented by Mr. E. H. Aitken, Bombay.

Mus urbanus (Hodgs.).—Common House Mouse. Hab.: India.

a to d.—Living specimens, presented by Mr. R. A. Sterndale, Bombay.

Family—LEPORIDÆ.

Genus—LEPUS.

Lepus ruficaudatus (Geoffr.).—Common Indian Hare. Hab.: India

† *a.*—Specimen, mounted in folds of Python. Donor, Mr. W. Shipp, Lanowlie.

ORDER VIII.—PROBOSCIDEA.

Family—ELEPHANTIDÆ.

Genus—ELEPHAS.

Elephas indicus (Cuv.).—Indian Elephant. Hab.: India.

a.—Skull of male, presented by Mr. J. Shillingford, Purneah.

ORDER IX.—UNGULATA.

Family—RHINOCEROTIDÆ.

Genus—RHINOCEROS.

Rhinoceros indicus (Cuv.).—The Indian Rhinoceros. Hab.: Himalayan Terai, from Central Nepal to Eastern Assam.

* Apparently undescribed; to be named hereafter.

† Mounted by Mr. E. L. Barton.

* Mounted by Mr. E. L. Barton.

d.—Mounted head, presented by Mr. J. C. Anderson, Bombay.

e & *f.*—Skins, presented by Mr. R. A. Sterndale, Bombay.

Sub-family—RUPI-CAPRINÆ.

Genus—NEMORHÆDUS.

Nemorhædus bubalina (H. Smith).—The Serow. Hab.: Himalayas.

a.—Skull, purchased. Dauvergne Collection.

Nemorhædus goral (Hardw.).—The Goral. Hab.: Himalayas.

a.—Skull, purchased. Dauvergne Collection.

Sub-family—CAPRINÆ.

Genus—CAPRA.

Capra megaceros (Hutton).—Markhor. Hab.: N.-E. Himalayas.

a & *b.*—Mounted heads, purchased. Dauvergne Collection.

c & *d.*—Skulls, " "

Capra Sibirica (Meyer).—Himalayan Ibex. Hab.: Kashmir and Ladak.

a to *c.*—Mounted heads, purchased. Dauvergne Collection.

d.—Skull, " "

Genus—OVIS.

Ovis Hodgsoni (Blyth).—The Ammon of sportsmen. Hab.: Himalayas.

a.—Mounted head, purchased. Dauvergne Collection.

b.—Skull, " "

<i>Ovis vignei</i> (Blyth)	}	—The Shapoo. Hab.: N. Himalayas. Purchased. Dauvergne Collection.
<i>a.</i> —		
<i>b.</i> —		
<i>c.</i> —		
<i>d.</i> —		

Ovis nahura (Hodg.).—The Burhel. Hab.: N. Himalayas.

a to *d.*—Heads mounted, purchased. Dauvergne Collection.

e & *f.*—Skulls, " "

g & *h.*—Skins, " "

Sub-family—CERVINÆ.

Genus—CERVULUS.

Cervulus muntjac (Temm.), *aureus* (H. Smith).—The Rib-faced Deer
or Kakur. Hab.: India.

a.—Mounted head, purchased. Dauvergne Collection.

b.—Skull, presented by Mr. J. Shillingford, Puneah.

Genus—CERVUS.

Cervus cashmirianus (Falc.).—The Kashmir Stag. Hab.: Kashmir.

**a.*—Mounted head, purchased. Dauvergne Collection.

b.— " " "

c.—Skull, " "

d.—Skin, " "

Cervus (Rucervus) Duvaucelli (Cuv.).—The Swamp Deer. Hab.:
Forest lands at foot of Himalayas from the Kyarda Doon to Bhotan,
Assam and Central India.

a.—Skull with horns, presented by Mr. J. Shillingford, Puneah.

Cervus (Rusa) Aristotelis (Cuv.).—Sambur. Hab.: India.

a.—Skull, presented by Mr. R. A. Sterndale.

b.—Horns. Donor, unknown.

c.—Skull, presented by Mr. J. Shillingford, Puneah.

d.— " " " "

Cervus (Axis) Porcinus (Temm.).—The Hog Deer. Hab.: India.

a.—Skull with horns, presented by Mr. J. Shillingford, Puneah.

b.— " " " "

Family—TRAGULIDÆ.

Genus—TRAGULUS vel MEMINNA.

Tragulus (Mevinna) Indica (Erx.).—The Mouse Deer. Hab.: India
and Ceylon.

a.—Skin, prepared for mounting, presented by Mr. W. F.
Sinclair, Alibag.

Family—SUIDÆ.

Genus—SUS.

Sus indicus (Schinz.) vel *cristatus* (Wagn.).—Indian Boar. Hab.:
India, Burmah and Ceylon.

a & b.—Mounted heads, presented by Mr. Barton.

c & d.—Skulls, presented by Mr. J. Shillingford, Furneah.

ORDER X.—CETACEA.

Family—MYSTICETE.

Genus—BALÆNOPTERA.

Balænoptera India (Blyth).—The Indian Rorqual, or Finback Whale.

Hab. : Indian Ocean.

Intervertebral disk. Donor, unknown.

ORDER XII.—EDENTATA.

Family—MANIDÆ.

Genus—MANIS.

Manis Pentadactyla (Linn.).—The Five-toed Pangolin, or Scaly Anteater. Hab. : India.

a.—Skin, presented by Mr. H. M. Phipson, Bombay.

Catalogue of Birds as yet in the Collection of the Bombay Natural History Society.

(N.B.—Contributions in this section are greatly needed, and will be thankfully received.)

An asterisk denotes Mr. Anderson's collection from Simla. A dagger, Colonel W. B. Thomson's, from Cashmere.

ORDER I.—RAPTORES.

Sub-family—FALCONINÆ.

* *Cerchneis tinnunculus* (Linn.).—The Kestrel.

Falco chicquera (Daud.).—The Merlin.

Sub-family—ACCIPITRINÆ.

Astur badius (Gm.).—The Shikra or Indian Sparrow Hawk.

* *Accipiter nisus* (Linn.).—The European Sparrow Hawk.

Sub-family—AQUILINÆ.

† *Pandion halietus* (Linn.).—The Osprey.

† *Haliaetus leucoryphus* (Pall.).—The Ring-tailed Sea-Eagle.

Sub-family—BUTONINÆ.

† *Buteo ferox* (Gm.).—The Long-legged Buzzard.

Butastur teesi (*Frankl.*).—The White-eyed Buzzard.

Sub-family—MILVINÆ.

Haliastur Indus (*Bodl.*).—The Maroon-backed or Brahminy Kite.

Family—STRIGIDÆ.

Sub-family—SYRNIINÆ.

* *Syrnium niviculum* (*Hodgs.*).—The Himalayan Wood-Owl.

Sub-family—BUBONINÆ.

Ketupa Ceylonensis (*Gm.*).—Brown Fish-Owl.

Sub-family—SURNIINÆ.

* *Glaucidium brodii* (*Burt.*).—The Collared Pigmy Owlet.

ORDER II.—INSESSORES.

Tribe—FISSIROSTRES.

Family—HIRUNDININÆ.

† *Hirundo rustica* (*Linn.*).—The Common Swallow.

Sub-family—CYPSELLINÆ.

Collocalia unicolor (*Jerd.*).—Edible Nest Swift.

Family—MEROPIDÆ.

† *Merops apiaster* (*Linn.*).—The European Bee-eater.

Merops viridis (*Linn.*).—Common Indian Bee-eater.

Merops Philippinus (*Linn.*).—The Blue-tailed Bee-eater.

Merops quanticolor. (*Viell.*).—The Chestnut-headed Bee-eater.

Family—CORACIADÆ.

† *Coracias garrula* (*Linn.*).—The European Roller.

Coracias Indica (*Linn.*).—The Indian Roller.

Family—HALCYONIDÆ.

† *Alcedo ispida* (*Linn.*).—The European Kingfisher.

Alcedo bengalensis (*Gm.*).—Common Indian Kingfisher.

Ceryle rudis (*Linn.*).—The Pied Kingfisher.

Family—BUCEROTIDÆ.

Dichoceros cavatus (*Bodl.*).—The Great Hornbill.

Tribe—SCANSORES.

Family—PSITTACIDÆ.

Sub-family—PALÆORNINÆ.

Palæornis purpureus (*P. L. S. Müll.*).—Rose-headed Parraquet.

* *Palæornis schisticeps* (*Hodgs.*).

Family—PICIDÆ.

Sub-family—PICINÆ.

† * *Picus himalayensis* (*Jerd. and Selb.*).—The Himalayan
Pied Woodpecker.

* *Picus brunneifrons* (*Vig.*).—The Brown-fronted Woodpecker.

Sub-family—CAMPEPHILINÆ.

Chrysocolaptes strictus (*Horsf.*).—Southern Large Golden-
backed Woodpecker.

Sub-family—GECININÆ.

* *Gecinus squamatus* (*Vig.*).—The Scaly-billed Green Wood
pecker.

Family—MEGALÆMIDÆ.

Megalæma viridis (*Bodd.*).—Small Green Barbet.

Xantholæma hæmacephala (*P. L. S. Müll.*).—The 'Crimson-
breasted Barbet.

Family—CUCULIDÆ.

Sub-family—CUCULIDÆ.

† *Cuculus canorus* (*Linn.*).—The European Cuckoo.

Coccystes jacobinus (*Bodd.*).—The Pied-crested Cuckoo.

Eudynamis honorata (*Linn.*).—The Indian Koel.

Sub-family—PRÆNICOPHAINÆ.

Centroccocyx rufipennis (*Iu.*).—The Common Crow Pheasant.

Tribe—TENUIROSTRES.

Family—NECTARINIDÆ.

Sub-family—NECTARININÆ.

Æthopyga vigersi (*Sykes*).—The Violet-eared Red Honeysucker.

Cinnyris minima (*Sykes*).—The Tiny Honeysucker.

Cinnyris Asiatica (*Lath.*).—The Purple Honeysucker.

Sub-family—DICÆINÆ.

Dicæum erythrorhynchus (*Lath.*).—Tickell's Flower-pecker.

Family—CERTHIADÆ.

Sub-family—CERTHINÆ.

† *Certhia Himalayana* (*Vig.*).—The Himalayan Tree-creeper.

* *Tichodroma muraria* (*Linn.*).—The Red-winged Wall-creeper.

Tribe—DENTIROSTRES.

Family—LANIADÆ.

Sub-family—LANIANÆ.

† *Lanius erythronotus* (*Vig.*).—The Rufous-backed Shrike.

Sub-family—MALACONOTINÆ.

Tephrodornis Pondicerianus (*Gm.*).—The Common Wood-shrike.

Sub-family—CAMPEPHAGINÆ.

Grauculus macii (*Less.*).—The Large Cuckoo-shrike.

Pericrocotus flammeus (*Forst.*).—The Orange Minivet.

Pericrocotus peregrinus (*Linn.*).—The Small Minivet.

Pericrocotus brevirostris (*Vig.*)—The Short-billed Minivet.

Sub-family—DICRURINÆ.

Buchanga atra (*Herm.*).—The Common Drongo-shrike or King-crow.

Buchanga cærulescens (*Linn.*).—The White-bellied Drongo.

Family—MUSCICAPIDÆ.

Sub-family—MYIAGRINÆ.

† *Muscipeta paradisi* (*Linn.*).—The Paradise Fly-catcher.

Sub-family—MUSCICAPINÆ.

Cyornis tickelli (*Blyth*).—Tickell's Blue Redbreast.

† *Muscicapula Superciliaris* (*Jerd.*).—The White-browed Blue Fly-catcher.

Family—MERULIDÆ.

Sub-family—MYISTHERINÆ.

Myiophoneus Horsfieldi (*Vig.*).—The Malabar Whistling Thrush.

† *Myiophoneus Temminckii* (*Vig.*).—The Yellow-billed Whistling Thrush.

Sub-family—MERULINÆ.

* *Petrophila erythrogastra* (*Vig.*).—The Chestnut-billed Thrush.

Petrophila cinclorhyncha (*Vig.*).—The Blue-headed Chat Thrush.

† *Cyanocinclus cyanus* (*Linn.*).—The Blue Rock Thrush.

Geocichla cyanotis (*Jerd. & Selb.*).—The White-winged Ground Thrush.

† *Geocichla unicolor* (*Tickell*).—The Dusky Ground Thrush.

Merula nigropilea (*Lifr.*)—The Black-capped Blackbird.

* *Turdus ruficollis* (*Pall.*).—The Red-tailed Thrush.

* *Oreocincla mollissima* (*Bly*).—The Plain-backed Mountain Thrush.

Sub-family—TIMALINÆ.

Pematorhinus Horsfieldi (*Sykes*).—The Southern Scimitar Babbler.

* *Trochalopterus variegatus* (*Vig.*).—The Variegated Laughing Thrush.

* *Trochalopterus lineatus* (*Vig.*).—The Streaked Laughing Thrush.

Malacocercus Somervillii (*Sykes*).—The Rufous-tailed Babbler.

* *Malacias capistratus* (*Vig.*).—The Black-headed Sibia.

Chatarrhoea caudata (*Dum.*).—The Striated Bush Babbler.

Family—BRACHYFODIDÆ.

Sub-family—PYCNONOTINÆ.

Otocompsa fuscicaudata (*Jerd.*).—The Southern Red-whiskered Bulbul.

* † *Otocompsa leucogenys* (*Gray*).—The White-checked Crested Bulbul.

Molpastes hæmorrhous (*Gm.*).—The Common Madras Bulbul.

* † *Hypsipetes psaroides* (*Vig.*).—The Himalayan Black Bulbul.

Sub-family—PHYLLORNITHINÆ.

Phyllornis Jerdoni (*Blyth*).—The Common Green Bulbul.

Phyllornis malabaricus (*Gm.*).—The Malabar Green Bulbul.

Iora tiphia (*Linn.*).—The Black-headed Green Bulbul.

Sub-family—ORIOLINÆ.

Oriolus galbula (*Linn.*).—The Golden Oriole.

Oriolus melanocephalus (*Linn.*).—The Bengal Black-headed Oriole.

† *Oriolus kundoo* (*Sykes*).—The Indian Oriole.

Family—SYLVIADÆ.

Sub-family—SAXICOLINÆ.

Thamnobia cambaiensis (*Lath.*).—The Brown-backed or Southern India Robin.

Pratincola caprata (*Linn.*).—The White-winged Bush Chat.

* *Pratincola macrorhynchus* (*Stol.*).—The Long-billed Bush Chat.

Sub-family—RUTICILINÆ.

Chæmorornis leucocephalus (*Vig.*).—The White-capped Redstart.

Sub-family—DRYMOICINÆ.

Drymœca inornata (*Sykes*).—The Earth-brown Wren Warbler.

Drymœca insignis (*Hume*).—The Great Wren Warbler.

Franklinia buehneri (*Blyth*).—The Rufous-fronted Wren Warbler.

Sub-family—PHYLLOSCOPINÆ.

† *Reguloides occipitalis* (*Jerd.*).—The Large Crowned Warbler.

- * *Reguloides proregulus* (*Pall.*).—The Crowned Tree Warbler.
- * *Abrornis albo-superciliaris* (*Bly.*).—The White-browed Warbler.

Sub-family—SYLVINÆ.

- † *Sylvia affinis* (*Bly.*).—The Allied Grey Warbler.

Sub-family—MOTACILLINÆ.

- † *Budytes calcaratus* (*Pall.*).—The Yellow-headed Wagtail.
- † *Agrodroma sordida* (*Küpp.*).—The Brown Rock Pipit.

Sub-family—LEIOTRICHINÆ.

- * *Siva strigula* (*Hodgs.*).—The Stripe-throated Hill Tit.
- * *Minla castaniceps* (*Hodgs.*).—The Chesnut-headed Hill Tit.

Sub-family—PARINÆ.

- * *Lophophanes melanolophos* (*Vig.*).—The Crested Black Tit.
- * *Parus monticolus* (*Vig.*).—The Green-backed Tit.
- † *Parus nipalensis* (*Hodgs.*).—The Indian Grey Tit.

Tribe—CONIROSTRES.

Family—CORVIDÆ.

Sub-family—CORVINÆ.

- * *Corvus macrorhynchos* (*Wagler*).—The Indian Corby, or Carrion Crow.

Corvus splendens (*Vieill.*).—The Common Indian Crow.

- * *Nucifraga hemispila* (*Vig.*).—The Himalayan Nut-cracker.
- † *Nucifraga multipunctata* (*Gould.*).—The Spotted Nut-cracker.

Sub-family—GARRULINÆ.

- † *Pica bottanensis* (*Deless.*).—The Himalayan Magpie.
- * *Garrulus bispecularis* (*Vig.*).—The Himalayan Jay.
- † *Urocissa flavirostris* (*Bly.*).—The Yellow-billed Blue Magpie.

Sub-family—DENDROCOITTINÆ.

- Dendrocitta rufa* (*Lath.*).—The Common Indian Magpie.
- † *Dendrocitta Himalayensis* (*Bly.*).—The Himalayan Magpie.
- Graculus eremita* (*Linn.*).—The Himalayan Chough.

Family—STURNIDÆ.

Sub-family—STURNINÆ.

- † *Sturnus nitens* (*Hume*).—The Glossy Black Starling.
- Acridotheres tristis* (*Linn.*).—The Common Myna.
- Acridotheres fuscus* (*Wagler*).—The Dusky Myna.
- Sturnia pagodarum* (*Gmel.*).—The Black-headed Myna.

Sub-family—FRINGILLINÆ.

- † *Carpodacus erythrurus* (*Pall.*).—The Common Rose Finch.
- * *Pycnoramphus icterioides* (*Vig.*).—The Black and Yellow Grosbeak.

Sub-family—ESTRELDINÆ.

Amadina rubronigra (*Hodgs.*).—The Chestnut-bellied Munia.

Sub-family—ALAUDINÆ.

Pyrrhulanda grisea (*Scop.*).—The Black-bellied Finch Lark.

Alauda gulgula (*Frankl.*).—The Indian Sky Lark.

Sub-family—PASSERINÆ.

† *Passer domesticus* (*Linn.*).—The Common Sparrow.

* *Passer cinnamomeus* (*Gould.*).—The Cinnamon-headed Sparrow.

Sub-family—EMBERIZINÆ.

† * *Emberiza stracheyi* (*Moore.*).—The White-necked Bunting.

† *Emberiza Stewarti* (*Bly.*).—The White-capped Bunting.

† *Emberiza fucata* (*Pall.*).—The Grey-headed Bunting.

ORDER III.—GEMITORES.

Family—TRERONIDÆ.

Sub-family—TRERONINÆ.

Osmotreron Malabarica (*Jerd.*).—The Grey-fronted Green Pigeon.

Sub-family—TURTURINÆ.

Turtur Suratensis (*Gm.*).—The Spotted Dove.

ORDER IV.—RASORES.

Family—PTEROCIDÆ.

Pterocles exustus (*Tem.*).—The Common Sandgrouse.

Family—PHASIANIDÆ.

* *Pucrasia macrolopha* (*Less.*).—The Pakras Pheasant.

† *Pucrasia castanea* (*Gould.*).—

* *Euplocomus albocristatus* (*Vig.*).—The White-crested Kali
Pheasant.

Sub-family—GALLINÆ.

Galloperdix spadiceus (*Gm.*).—The Red Spur Fowl.

Family—TETRAONIDÆ.

Sub-family—PERDICINÆ.

Francolinus pictus (*Jerd. and Selb.*).—The Painted Partridge.

* *Caccabis Chukor* (*Gray.*).—The Chukor Partridge.

* *Arboricola torqueola* (*Val.*).—The Black-throated Hill Partridge.

Sub-family—COTURNICINÆ.

Coturnix Coromandelica (*Gm.*).—The Black-breasted, or Rain Quail.

ORDER V.—GRALLATOIRES.

Tribe—PRESSIROSTRES.

Family—OTIDIDÆ.

Sypheotides aurita (*Lath.*).—The Lesser Florican.

Family—CHARADRIDÆ.

Sub-family—VANELLINÆ.

Lobivanellus Indicus (Bodd.).—The Red Wattled Lapwing.

Tribe—LONGIROSTRES.

Family—SCOLOPACIDÆ.

Sub-family—TRINGINÆ.

Tringa Temminckii (Liesl.).—The White-tailed Stint.

Sub-family—TOTANINÆ.

Rhyacophila glareola (Linn.).—The Spotted Sandpiper.

Family—PARRIDÆ.

Sub-family—PARRINÆ.

† *Hydrophasianus chirurgus* (Scop.).—The Pheasant-tailed Jacane.

Tribe—CULTIROSTRES.

Family—ARDEIDÆ.

Bubulcus Coromandus (Bodā.).—The Cattle Egret.

Ardeola grayi (Sykes).—The Pond Heron.

Demi-egretta gularis (Bosc).—The Ashy Egret.

ORDER—NATATOIRES.

Tribe—LAMELLITOSTRES.

Family—ANSERIDÆ.

Sub-family—PLECTROPTERINÆ.

Sarcidiornis melanonotus (Penn.).—The Nukta or Black-backed Goose.

Tribe—MERGITOIRES.

Family—PODICIPIDÆ.

† *Podiceps minor* (Gm.).—The Little Grebe, or Dabchick.

Tribe—VAGATOIRES.

Family—LARIDÆ.

Sub-family—STERNINÆ.

Sterna Seena (Sykes) —The Large River Tern.

† *Sterna melanogastra* (Temm.).—The Black-bellied Tern.

The following Eggs were received chiefly from Mr. Davidson:—

Gyps pallescens.
Neophron ginginianns.
Falco jugger.
Astur badius.
Aquila vindhiana.
Nicaetus fasciatus.
Limnaetus cirrhatus.
Butastur teesa.
Haliastur indus.
Milvus govinda.

Syrnium ocellatum.
Bubo bengalensis.
Carine brama.
Hirundo filifera.
Hirundo erythropygia.
Hirundo fluvicola.
Collocalia unicolor.
Dendrochelidon coronata.
Ptyonoprogne concolor.
Cypsellus affinis.

<i>Caprimulgus asiaticus.</i>	<i>Drymœca inornata.</i>
<i>Caprimulgus monticolus.</i>	<i>Drymœca rufescens.</i>
<i>Merops viridis.</i>	<i>Fraulinia buehanani.</i>
<i>Merops philippinus.</i>	<i>Motacilla Maderaspatna.</i>
<i>Coracias indica.</i>	<i>Corvus macrorhynchus.</i>
<i>Haleyon smyrnensis.</i>	<i>Zosterops palpebrosa.</i>
<i>Alcedo bengalensis.</i>	<i>Corvus splendens.</i>
<i>Ocyrceros birostris.</i>	<i>Dendrocitta rufa.</i>
<i>Picus mahrattensis.</i>	<i>Acridotheres tristis.</i>
<i>Yungipicus nanus.</i>	<i>Acridotheres ginginianus.</i>
<i>Brachypternus aurantius.</i>	<i>Sturnia pagodarum.</i>
<i>Megalaima inornata.</i>	<i>Ploceus philippinus.</i>
<i>Coccyestes jacobinus.</i>	<i>Amadina punctulata.</i>
<i>Eudynamis honorata.</i>	<i>Amadina malabarica.</i>
<i>Centrophus rufipennis</i>	<i>Estrela amandava.</i>
<i>Cinnyris asiatica.</i>	<i>Gymnoris flavicollis.</i>
<i>Lanius lahtora.</i>	<i>Mirafra erythroptera.</i>
<i>Lanius erythronotus.</i>	<i>Pyrrhulauda grisea.</i>
<i>Lanius vittatus.</i>	<i>Spizalauda deva.</i>
<i>Tephrodornis pondicerianus.</i>	<i>Pterocles exustus.</i>
<i>Volvocivora sykesi.</i>	<i>Galloperdix spadiceus.</i>
<i>Perierocotus peregrinus.</i>	<i>Francolinus pictus.</i>
<i>Perierocotus erythropygius.</i>	<i>Ortygornis ponticerianus.</i>
<i>Buchanga atra.</i>	<i>Perdicula asiatica.</i>
<i>Leucocerca leucogaster.</i>	<i>Coturnix coromandelica.</i>
<i>Myiophoneus horsfieldi.</i>	<i>Turnix tiagoor.</i>
<i>Peytoris sinensis.</i>	<i>Lobivannellus indicus.</i>
<i>Malacocercus terricolor.</i>	<i>Lobipluvia malabarica.</i>
<i>Argya malcolmi.</i>	<i>Oedipnemus scolopax.</i>
<i>Chatarrhæa caudata.</i>	<i>Parra indica.</i>
<i>Ixus luteolus.</i>	<i>Erythra phænicura.</i>
<i>Otocompsa fuscicaudata.</i>	<i>Hypotænidia striata.</i>
<i>Molpastes hæmorrhous.</i>	<i>Herodias garzetta.</i>
<i>Iora tiphia.</i>	<i>Ardeola grayi.</i>
<i>Oriolus kundoo.</i>	<i>Ardea ciunamomea.</i>
<i>Thamnobia fulicata.</i>	<i>Tantalus leucocephalus.</i>
<i>Thamnobia cambaiensis.</i>	<i>Sarcidiornis melanonotus.</i>
<i>Orthotomus sutorius.</i>	<i>Podiceps minor.</i>
<i>Prinia stewarti.</i>	<i>Pelecanus philippensis.</i>
<i>Prinia hodgsoni.</i>	

Note by the Editors.—We have so far catalogued our Mammals and Birds subject to additions in the future, which will be noted from time to time. As yet we have not been able to complete our lists of Fishes, Reptiles, &c., which have been reserved for our next issue, but we may briefly state that our collections up to date consist of—

- 257 Specimens, comprising about 200 species of Fish in spirits.
- 12 Fishes stuffed and mounted by Mr. H. M. Phipson.
- 83 Specimens of Snakes in spirit.
- 47 Other Reptiles in spirit.
- 42 Crabs in spirit.
- 53 Crabs dried and set.
- 71 Other Marine Animals in spirit.

In addition to the above we have a collection of Butterflies from the Bombay Presidency, the Malabar Coast, the Himalayas, the Punjab, and from Aden; also some Moths, Beetles and other insects at present undergoing classification.

THE SOCIETY'S LIBRARY

Contains as yet but the following books :—

MAMMALS.

- Mammals of India—(Jerdon).
 Mammalia of India and Ceylon—(Sterndale).
 Histoire Naturelle de Mam.mifères—(Gervais).

BIRDS.

- Birds of India—(Jerdon). 3 Vols., 2 copies.
 Stray Feathers—(Hume, ed.). 7 Vols.
 Birds' Nesting in India—(Marshall).
 Birds of British Burmah—(Oates).
 Fauna Japonica, Aves—(Siebold).
 Birds of South Africa—(Layard & Sharpe).
 Monograph of the Sunbirds—(Shelley).
 Monograph of the Birds of Paradise—(Elliott).
 Monograph of the Jacamars—(Sclater).

REPTILES AND FISHES.

- Reptiles of India—(Günther).
 Indian Snakes—(Nicholson).
 Malabar Fishes—(Day). 2 Copies.
 Fresh Water Fishes of India—(Beaven).
 Fishes of Madeira—(Lowe).
 Fauna Japonica, Reptilia et Pisces—(Siebold).
 Fishes of the Coremandel Coast—(Russell).

INSECTS.

- Classification of Insects—(Westwood).
 Text Book of Entomology—(Kirby).
 Butterflies of Great Britain—(Westwood).
 The Annelian—(Harris).
 Encyclopédie d'Histoire Naturelle, Papillons—(Cherin).

OTHER INVERTEBRATA.

- Conchology—(Lamarck).
 Fauna Japonica, Crustacea—(Siebold).

BOTANY.

- Flora of British India—(Hooker).
 Ferns of British India—(Beddome).
 Vegetable Products of the Bombay Presidency—(Birdwood).
 Bombay Flora—(Dalzell and Gibson).

Plants and Drugs of Sind—(Murray).

Timber Trees of India—(Balfour).

Flore Forestière de Cochinchine—(Pierre). 5 parts.

Icones Plantarum—(Wight). Vols. II. to VI.

GENERAL.

Zoological Atlas—(Brehm).

Museum of Natural History.

Vertebrata of Sind—(Murray).

Cassels' Natural History.

Naturalist's Wanderings in the China Seas—(Collingwood).

The Calcutta Journal of Natural History. 7 Vols.

Beeton's Dictionary of Natural History.

Naturalist's Wanderings in the Eastern Archipelago—(Forbes).

Anatomy of Vertebrated Animals—(Huxley).

The *Asian*—Vols. I. to VI.

Odontography—(Owen).

Lectures on Comparative Anatomy—(Owen)

NOTE ON AN UNDESCRIBED HAMALOPSIDA.

BY THE REV. F. DRECKMANN, S.J.

Figured on stone by Mr. R. A. Sterndale.

This specimen was forwarded to the Society from Saugor, Central Provinces, by Mr. H. Craufurd Thomson.

Head short, thick, broad, distinct from neck; cleft of mouth turned upwards behind; eyes small with round pupil; nostrils on the upper surface of the head in a single large nasal shield, the outer part of which is divided by a groove running outwards from the nostrils; the two nasals contiguous; two small anterior frontals; two loreals, one above the other, the lower one larger than anterior frontals, the upper one small, vertical, longer than broad, five-sided—one præocular, two postoculars; 8 upper labials rather high, the 4th entering the orbit; temporals, 1+2+0.0; anterior chin shields in contact with four lower labials; posterior chin shields small, scale-like; six transverse series of scales between chin shields and first ventral. Scales smooth 33; ventrals narrow, 158; anals and sub-caudals bifid. Sub-caudals, 54; ground colour yellowish white, with 32 large irregular rounded black spots, leaving a narrow stripe of ground colour between them;

a series of rather irregular black spots along lower part of the side alternating with vertebral spots, so that the ground colour appears as decussating stripes. Belly densely checkered with black. Two yellowish lines on the upper part of the head diverging from the muzzle over the eyes to the sides of the head; from each side of the vertical a line diverging towards the occiput. Length 10 inches, of which the tail is $1\frac{1}{2}$ inches.

NOTE ON A PROBABLE NEW SPECIES OF IBEX.

(*Capra Dauvergnii*, nob.) or variety of *Capra sibirica*.

By R. A. STERNDALÉ, F.Z.S.

I HAVE always been averse to multiplication of species, and the tendency of modern research has been to diminish the number of existing sub-divisions; it is therefore with some hesitation I bring forward the claims of the subject of my note to separation from the two known species of Oriental Ibex—*Capra sibirica* and *Capra Ægagrus*; *Capra skeen* and *Capra himalayica* of authors being identical with *C. sibirica*. The question of hybridization between the various marked species of *Capræ* and *Oves* has not as yet received the attention that it should, and I think on examination it will be found that certain named species will prove to be hybrids, notably *Ovis Brookei*, but on this point I shall have more to say on a future occasion. The horns of which I have given an illustration herewith were purchased for me some months ago in Kashmir by my friend Mons. H. Dauvergne, simply on account of their size, being 52 inches in length. On receiving them I was struck by their remarkable divergence from the types of *C. sibirica* and *Ægagrus*, and from any Ibex horn I had ever seen. At first I took it to be a hybrid between the two above-mentioned species, but I subsequently abandoned this idea, for it bears no resemblance at all to the latter beyond the departure from the usual curve of the well-known Himalayan Ibex. Eccentric forms are not uncommon in the Persian animal, and Mr. Danford figures a pair, in his article in the P.Z.S. for 1875, page 458, the tips of which turning inwards cross each other. In my specimen the horns sweep backwards and outward having widely divergent tips, and in a case of hybridization I should look for some modification of the section of the horn, the

two species being so vastly different in this respect. *Capra sibirica*. has a square horn, the front broader than the back, and strongly marked with transverse ridges at intervals of less than an inch. *C. ægagrus* has an oval or compressed elliptic section, flatter on the inner side and with a sharp keel or longitudinal ridge in front, which ridge has irregular knobs at considerable distances. In the horns under notice the section resembles that of *sibirica*, flat in front and at the sides, slightly rounded beneath. In texture and colour resembling the Markhor horn, being much darker than the ordinary Ibex. Instead of the decided ridges of *C. sibirica* there are rugosities or folds at the following distances :—

Right horn.. .. $2\frac{1}{8}$ ", $2\frac{3}{8}$ ", $3\frac{3}{8}$ ", 4", $5\frac{1}{8}$ ", $5\frac{3}{8}$ ",
 Left horn..... $2\frac{3}{8}$ ", $2\frac{3}{8}$ ", $2\frac{3}{8}$ ", $4\frac{1}{8}$ ", $5\frac{1}{8}$ ", $5\frac{3}{8}$ ",

the rest of the horn is more decidedly and closely knobbed, with fine rings at the tips.

At the base the section measures about $3\frac{1}{2}$ " from front to back, and about $2\frac{3}{4}$ " across.

As regards the skull, which in my specimen is damaged in the occipital region, it is somewhat slighter than that of a head of *C. sibirica* with 40-inch horns, but until we get more specimens to work upon, it is useless to dwell on skull characteristics in this paper. Colonel Kinloch, in a letter to the *Asian*, seems to think that this is an abnormality of sport, from an abnormal specimen killed by him, but from what I gather I am inclined to believe that my skull is of a distinct species or variety from the hills north of the Kishengunga river. Mons. Dauvergne wrote to me in August last that he came across a similar head two years ago, freshly killed, horns measuring 42 inches, widely divergent like mine, with the same characteristics of smoothness and section. I hope to see this head some day as it has been traced. In a recent letter, dated 13th December, he says: "Another horn of the same tribe has been purchased by Sir Oliver St. John; that is the third I know of and those skin men tell me they have seen them often, but that they are not numerous." Their habitat is as yet uncertain, but with such an enthusiastic and experienced sportsman as Mons. Dauvergne on the scent, I do not despair of deciding this question. He thinks they may come from the range of hills north of the Kishengunga river or the Khagan country west of Kashmir. From enquiries I have made there are no similar horns in the British Museum or in the

India Museum at Calcutta. I have also received letters from Sir Victor Brooke and Mr. W. T. Blanford, both high authorities on Indian ruminants, to the effect that such a formation is new to them. Mr. Blanford suggests that it might be a hybrid between *C. sibirica* and *megaceros*, variety *Falconeri*; but though I have gone into the records of hybridization in the gardens of the Zoological Society, and therefore believe such a combination possible, the absence of any flattening of the horn and also its curvature is against the theory. The discovery of more than the three heads above mentioned, and the fixing of a particular locality, will go far towards proving the existence of a distinct species. In the meantime, in placing this head on record, I wish to associate with it the name of Mons. Dauvergne, to whom both the Society and myself are under considerable obligations as regards assistance in obtaining specimens of Kashmir fauna, and who first brought it to my notice, and therefore, as a tentative measure, I propose to call it that of "*Capra Dauvergnii*."—R. A. S.

NOTE ON MYGALE FASCIATA.

BY CAPT. T. R. M. MACPHERSON.

2nd February.—The following extract was read from a letter, which the Secretary had received from Captain T. R. M. Macpherson, forwarding ten specimens of a very large species of *Mygale* found by him in the Kamora district:—

"The spiders, though fairly common in the evergreen forests of this district, are little known, and few men have ever seen them. The first I ever saw I found in one of my boots last year, and shortly afterwards I discovered their habits. They are, I think, entirely nocturnal, keeping always to their burrows in the day-time. I have not been able to ascertain what they live on, but it is probably lizards and small birds. The natives call them *Wagh Duri* and say that they are very venomous, but I have never heard of anybody being bitten by them. However, their long, sharp and hollow 'falces,' strongly resembling the poison fangs of a snake, lead me to believe that they are poisonous, and I would recommend caution in handling them. I experimented the other day on a chicken. The spider

attacked it viciously, drawing blood in several places, but beyond frightening the chicken there was no result. However, this spider may have exhausted its poison, for it had been much irritated and had been striking repeatedly at sticks and other things before it attacked the chicken.

"These spiders live in burrows, which they excavate in steep banks of earth. The burrows vary from one inch to $2\frac{1}{2}$ inches in diameter, in accordance with the size of the occupant, and are of the form shown below." (The diagram showed a short, straight passage, turning sharply to one side at the end, which was a little widened to form a chamber.) "Sometimes the chamber is to the right, instead of to the left, as shown in the diagram. The burrow and chamber are lined throughout with a closely woven, soft web, much resembling very fine white tissue paper. The total length of the burrows averages, I should say, about 15 inches, the straight part being about a foot, and excavated perpendicularly to the face of the bank, which is usually precipitous."

Editor's Note.—This species, which appears to be *Mygale fasciata* (Seba), is not uncommon in Southern India and Ceylon, but has not attracted much attention from its nocturnal habits. There has been a controversy of long standing regarding the bird-eating propensities of this genus. The first to give currency to the assertion was Madame Merian, who, in a work on Surinam Insects, published in 1705, figured *Mygale avicularia* in the act of devouring a bird. In 1834 Mr. Macleay (P. Z. S. for that year, page 12,) threw doubt on her accuracy, and disbelieved in any bird-catching spider, which opinion, however, he subsequently modified (*Ann. and Mag. Nat. Hist.*, 1842, Vol. VIII., p. 324), having seen in Australia a large *Epeira diadema* sucking the juice of a small bird, *Zosterops dorsalis*, which it had caught in its net, but he was still inclined to think it exceptional and accidental. However, other writers have since supported Madame Merian. (See same vol. *Ann. and Mag. Nat. Hist.*, p. 436.) Mons. Jonnes says that its mode of attack is to throw itself on to its victim, clinging by the double hooks of the tarsi, and striving to reach the back of the head to insert its jaws between the skull and the vertebræ. Sir Emerson Tennent was told by a lady who lived near Colombo that she had seen a *Mygale* devour a house lizard. Mr. Edgar Layard (*Ann. and Mag. Nat. Hist.*, May, 1853,) described a fight between a *Mygale* and a cockroach, not much of a fight, for the poor cockroach was speedily overcome and devoured. Mr. Bates, the author of the "Naturalist on the Amazons," has stated that he has seen birds entangled in webs spun by a species of *Mygale* and the spider actually on the bird, and his opinion was that if the *Mygales* did not prey upon vertebrated animals he could not see how they could find sufficient subsistence. (*The Zoologist*, Vol. XIII., p. 480.) So far evidence is in favour of the bird-eating propensities of this genus, but it would be interesting to prove the habits of our Indian species, and therefore living specimens taken, if possible with nest complete, would be most acceptable in order that they may be placed under observation.—R. A. S.

ON THE MIMICRY SHOWN BY PHYLLORNIS
JERDONI.

By MR. E. H. AITKEN.

At the Meeting of the 1st Section held on July 30, 1885, Mr. E. H. Aitken put in the following note :—

“On two occasions lately my attention has been attracted to the extraordinary powers of mimicry possessed by the green Bulbul, *Phyllornis Jerdoni* or *Malabaricus*, I am uncertain which, as both are found on the Western Ghâts, and I did not in either case see the bird clearly enough to distinguish it. In May I was walking up from Narel to Matheran when I heard the notes of several familiar birds in one bush. I threw stones into the bush and a pair of green Bulbuls flew out. There was nothing else in the bush. On the second occasion, last July, I was at Tanna seeking for nests, when I thought I heard *Malacocercus Somervillei* in a jambool tree. I went up to the tree and could see no bird, but the *Malacocercus* continued very noisy. Then I heard a King Crow, *Buchanga Atra*, calling out vigorously. I pelted the tree with stones, and after a little a green Bulbul appeared at the very top of the tree and began to abuse me in several languages. Jerdon quotes Tickell to the effect that *P. Jerdoni* is an excellent mocking bird, but as he does not support the statement by his own experience, and as no other writer I know of mentions the fact, I think it is worthy of notice.”
